



F. (c)
MII SPS-2



Long-Term Pavement Performance

LTPP North Central Regional Office

505 West University Avenue - Champaign, IL 61820-3915 - Tel 888 367-3737 - Fax 217 356-3088 - www.ncrco.com

December 20, 1999

Mr. Monte Symons, HRDI-13
FHWA-LTPP
Turner-Fairbank Highway Research Center
6300 Georgetown Pike
McLean, Virginia 22101-2296

Re: SPS Construction Report for SPS-2 at Hatley, Wisconsin

Dear Monte:

Please find enclosed a copy of the SPS construction report for the SPS-2 at Hatley, Wisconsin. Please let me know if you have any comments or questions concerning this report. Reports for the remaining SPS projects at Hatley will be completed in the near future, and sent to you as they are available.

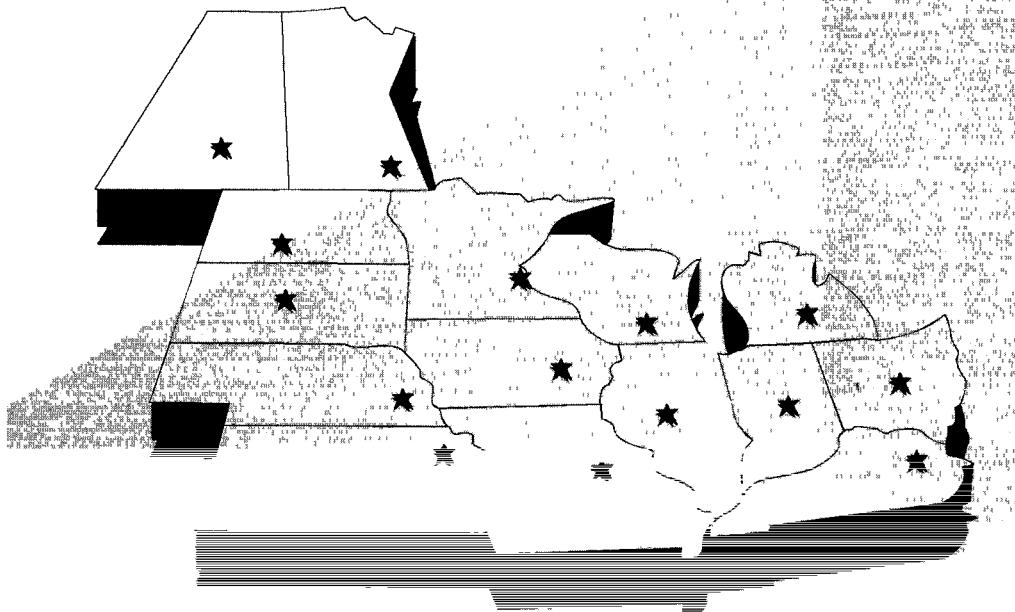
Sincerely,

Thomas P. Wilson, P.E.
North Central Regional Coordination Office

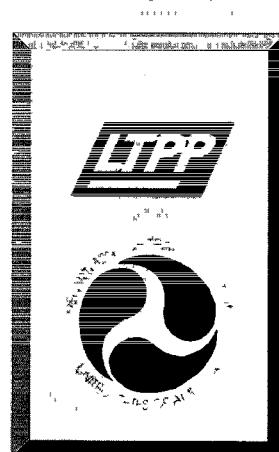
cc: A. Lopez (FHWA)
J. Jiang (LTPP-DATS)

Construction Report for Wisconsin SPS-2

DTFH61-96-C-00013



December 17, 1999



Submitted by



**SPS-2 Construction Report
STH 29, Westbound
Marathon County, Wisconsin
3.5 Miles East of Hatley, Wisconsin**

Sections 550213 to 550224 and 550259 to 550266

Federal Highway Administration
LTPP Division
North Central Region

Report Prepared By:
Brenda B. Mehnert

ERES Consultants
A Division of Applied Research Associates, Inc.
505 West University Ave.
Champaign, Illinois 61820

December 1999

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Attachment B: Site Layout

Attachment C: Material Sampling and Testing Plan

Attachment D: Layer Description and Thickness for each Section

Attachment E: Project Deviation Reports

1 Project Overview

The SPS-2 experiment has been developed to study structural factors for rigid pavements. The objective of the study is to determine the influence of various factors on the long-term performance of rigid pavements. These factors include:

- In-pavement drainage systems
- Base type
- Concrete strength
- Pavement thickness
- Lane width

Other factors include load transfer, joint orientation, and reinforcement. Determining the influence of environmental region and soil type on these factors is another objective, with the goal of providing substantially improved methods for design and construction of new and reconstructed pavements.

Some of the products of this experiment will help accomplish the objectives of the Strategic Highway Research Program (SHRP) Long Term Pavement Performance (LTPP) project. The key products from the SPS-2 experiment will include an evaluation of the existing design methods, development of improved design equations for new and reconstructed pavements, determination of the effects of specific design features on pavement performance, and development of a comprehensive database for use by State and Provincial engineers and other researchers.

1.1 Experiment Cell

This SPS-2 experiment in Wisconsin is located in the wet-freeze environmental zone and was constructed on a coarse subgrade.

1.2 Project Location

The Wisconsin SPS-2 project is located on the westbound and eastbound Wisconsin State Highway 29 (STH-29) in Marathon County, Wisconsin. This site is roughly 3.5 miles east of Hatley, Wisconsin. Attachment A is a project location map.

1.3 Project Layout

The Marathon County SPS-2 site incorporates 8 Wisconsin DOT test sections in addition to the 12 SHRP sections. Attachment B contains the test section layout that summarizes PCC thickness and layer descriptions.

1.4 Traffic Characteristics

This four-lane section of STH-29 is classified as a rural arterial. Table 1 shows traffic data at the time of construction:

1.5 Limits of Test Sections

Table 2 shows the limits of the test sections at this SPS-2 site. Note that sections marked by an asterisk are Wisconsin DOT sections.

1.6 Weather Monitoring

During construction a site was prepared for a weather monitoring station. This AWS unit was installed in June 1997.

1.7 Traffic Monitoring

A weight-in-motion (WIM) system was installed August 29, 1997 to classify all individual axles by wheel in all lanes of this section of State Highway 29. The WIM equipment used in this project was a DAW-100 unit manufactured by PAT, Equipment. Their address is:

1665 Orchard Dr.
Chambersburg, Pennsylvania 17201
Phone: (717) 263-7655

The WIM scale (in each lane) consists of two-bending plates mounted in the pavement that cover half of each lane. The bending plates in each lane are staggered with an inductance loop for vehicle classification between bending plates. The WIM device is located at station 1073+81 both directions near the intersection of State Highway 29 and County Highway D.

1.8 Personnel

North Central Regional Coordination Office:

ERES Consultants, a Division of ARA
Tom Wilson
Co-Principal Investigator
505 West University Avenue
Champaign, Illinois 61820
(217) 356-4500

Material Testing:

Construction-Geotechnical Consulting Engineering/Testing, Inc. (CGC)
3011 Perry St.
Madison, WI 53713
(608) 288-4100

University of Wisconsin-Madison, Structures Materials Lab
Peter J. Bosscher and Hussain U. Bahia
2210 Engr. Bldg., 14515 Engr. Dr.
UW-Madison, WI 53706
(608) 265-4481

OMNNI Associates, Inc.
Timothy A. Bolwerk, P.E.
One Systems Drive
Appleton, WI 54914-1654
414/735-6900

Joel Weber
Kapur & Associates, Inc.
7711 N. Port Washington Rd.
Milwaukee, WI 53217
(715) 253-3827

American Asphalt of Wisconsin
P.O. Box 98
Mosinee, WI 5455-0098
(715) 693-5200

Field Sampling and Testing:

Joel Weber
Kapur & Associates, Inc.
7711 N. Port Washington Rd.
Milwaukee, WI 53217
(715) 253-3827

Scott Schwandt (Nomination form)
Steve Shober, PE (chief pavement & research engineer)
Wisconsin Department of Transportation
3502 Kinsman Blvd.
Madison, WI 53704-2507
(608) 246-5399

Construction Technology Laboratories, Inc.
5420 Old Orchard Rd.
Skokie, IL 60077-1030
(847) 965-7500

Design Team:

Mr. Van Walling, PE
CH2M Hill Incorporated
411 East Wisconsin Ave.
Suite 1600
Milwaukee, WI 53202
(414) 272-4408

LTPP Design Review:

John Miller

PCS/LAW

A Division of Law engineering and Environmental Services, Inc.
12104 Indian Creek Court, Suite A,
Beltsville, Maryland 20705
(301) 210-4105

Contractors:

Tom Pagel

Pagel Construction

1380 Division St.

Almond, WI 54909

(715) 366-2975

Ray Gausmann

Mathy Construction Co.

920 10TH Ave. N.

Onalaska, Wisconsin 54650

(608) 783-6411

Mr. Dan Beaudoin

James Cape & Sons, Co., Inc.

6422 North Hwy. 31

Racine, WI 53401-1315

1.9 Known Deviations from Guidelines

Attachment E contains project deviation reports filled out during and after construction.

1.10 Summary of Key Construction Equipment

Subgrade Preparation

- Push Cat
- scrapers
- bulldozers

Base Layer Preparation

- CMI trimming machine
- Drum mix plant
- Rex paver (R28) (See Figure 1)

Portland Concrete Layer Preparation

- REX paver (R28)
- Portland cement concrete mix plant

Joint Preparation

- Pavement saw
- Air compressor



Figure 1. Rex R-28 used in paving SPS-2 site.

2 Project Details

Meetings were held on site weekly from the initial meeting, May 1997, through the end of construction, November 1997. These meetings were attended by representatives from the contractor, sub-contractors, LTPP, and Wisconsin DOT and were an effective way of communicating any changes or delays.

2.1 Material Sampling and Testing

Locations of material sampling and field-testing for each layer are given in attachment C. The type of test performed on each material layer, number of samples tested, and sample location are shown in Table 3. Samples for laboratory testing were sent to C.G.C., James Cape & Sons Co., Inc., Omnni Associates, University of Wisconsin, Madison, and the Wisconsin Department of Transportation.

Table 3. Type of Material Testing and Number of Samples Retrieved for Each Layer

Material and Sample Description	Number of Samples	Sample Location
PCC Coring - 4" OD Cores Bulk Sampling	132 10	C1-C157 B31-B40
LCB Coring - 4" OD Cores Bulk Sampling	24 2	C9-C11, C13-C15, C17-C19, C21-C23, C76-C78, C80-C82, C84-C86, C88-C90 B29 and B30
PATB and CSOGB Bulk Sampling	3	B26, B27 and B28
DGAB Field Nuclear Moisture/Density Testing Bulk and Moisture Sampling	46 5	T70-T119 (excluding T90,T91,T92 & T112) B21-B25
Existing Crushed Rock Base 4' x 4' Bulk Sampling to top of subgrade	2	B19 and B20
Existing Subbase Field Nuclear Moisture/Density Testing 2'x2' Bulk Sampling to top of subgrade	17 5	T53-T69 B14-B18
Embankment Field Nuclear Moisture/Density Testing 2'x2' Bulk Sampling to 1' below Surface Split-spoon sampling to 4' below top of Embankment	31 5 3	T21-T52 (excluding T38) B9-B13 A28-A30
Subgrade Field Nuclear Moisture/Density Testing 2'x2' Bulk sampling to 1' below Surface Split-spoon sampling to 4' below top of Subgrade	19 8 24	T1-T20 (excluding T12) B1-B8 A1-A24

All sampling and field-testing in each layer were completed before construction began on the next layer.

2.2 Construction

Subgrade preparation for this project began in early June 1997 and paving operations were completed by mid-October 1997.

2.3 Subgrade Preparation

Scrapers, bulldozers and push cats were used to compact the subgrade. The lift thickness was typically 8 inches. Remnants of old PCC pavement were found in the subgrade when sampling using shelby tubes. PCC slabs were removed and subgrade was reworked to bring it back to required elevation.

2.4 Placement of Base Layers

Four different types of base layers were used in various combinations: dense graded aggregate base course (DGAB), lean concrete base course (LCB), permeable asphalt treated base (PATB), and the cement stabilized open graded base (CSOGB).

The DGAB and the CSOGB thickness were 4 and 6 inches, respectively. Compaction was achieved using scrapers, bull dozers and push cats. Typically, an eight-inch lift thickness was used for 6-in layers, and a six-in lift was used for 4-in layers. Frequently this procedure resulted in a layer that was too thick. Therefore, a CMI trimming machine was used to achieve the proper layer thickness.

All PATB base layers were 4 in thick. A Rex, R28 was used for paving. The paver had a single pass lay down width of 12 ft and, typically, a first lift placement thickness of 5 to 6 in. The asphalt was obtained from the Bohlman plant located 2 miles from the test site with a hauling time of 10 minutes.

The LCB were paved with a Rex, R28 slip form paver. This machine has a 24-ft wide lay down width. The concrete was obtained from Bohlman concrete plant located a mile from the test sections. Vibrating screeds were used for consolidation of materials. Finishing was done by screeding, and a membrane-curing compound was placed on the LCB.

2.5 Mix Designs and Concrete Paving

Two different mix designs were used in this SPS-2 project. All used a La Farge Type II cement. The coarse aggregate was made of 100 percent crushed, and the fine aggregate was composed of 100 percent manufactured sand. Table 5 summarizes the mix designs.

A Rex, R28 slip form paver paved the PCC layer. The width paved in one pass, varied from 20 to 26 ft. The cement mixture was consolidated using internal vibrators. Vibrators were placed 6 in. below the surface approximately 24 in. apart. Finishing was done by screeding, and a membrane-curing compound was used. The surface was textured using a tine.

Attachment A

Project Location

Wisconsin

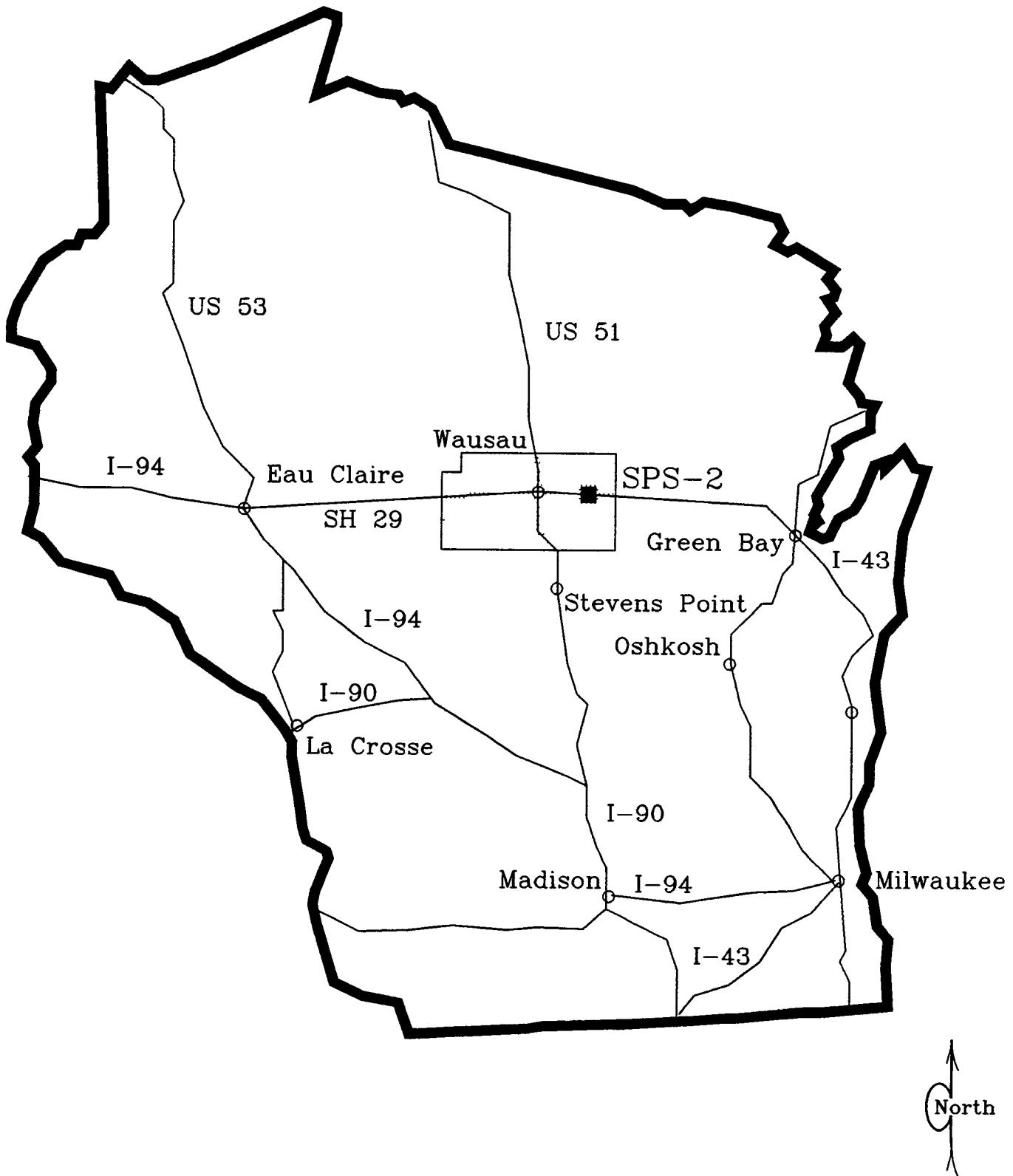


Figure A-1. General Project Location.

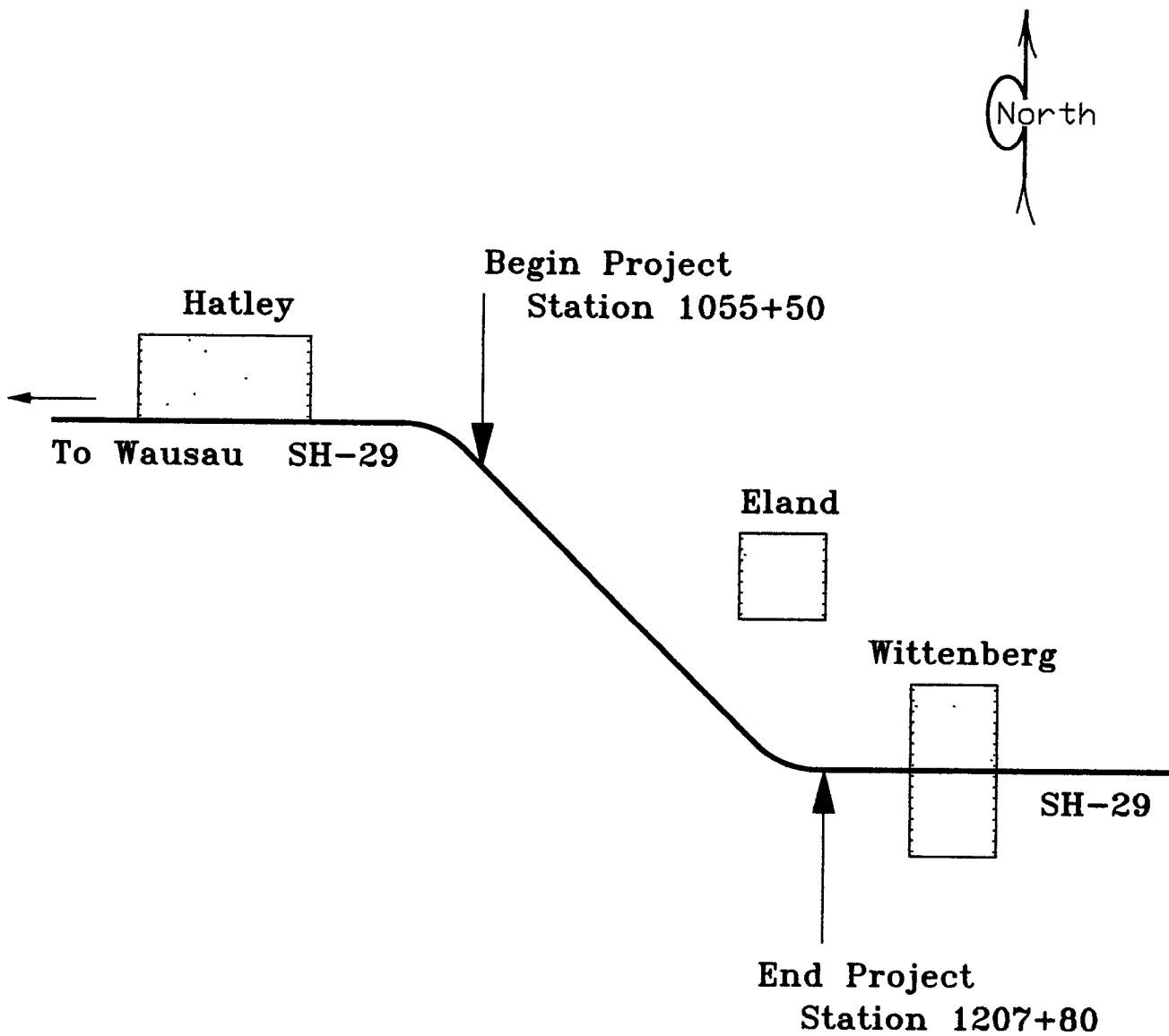
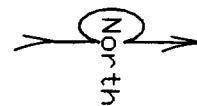


Figure A-2. Detailed Project Location.

Attachment B

Site Layout

WISCONSIN SPS-2
STH-29 WB/EB Marathon County
3.5 Mi East of Hatley



As Built 1997

Legend

PCC	Portland Cement Concrete
LCB	Lean Concrete Base
DGAB	Dense Graded Aggregate Base (WSDOT Crushed Aggregate Base Course)
OGBC	Open Graded Base Course
CSOGB	Cement Stab. Open Graded Base
PATB	Permeable Asphalt Treated Base
* Wisconsin DOT sections	

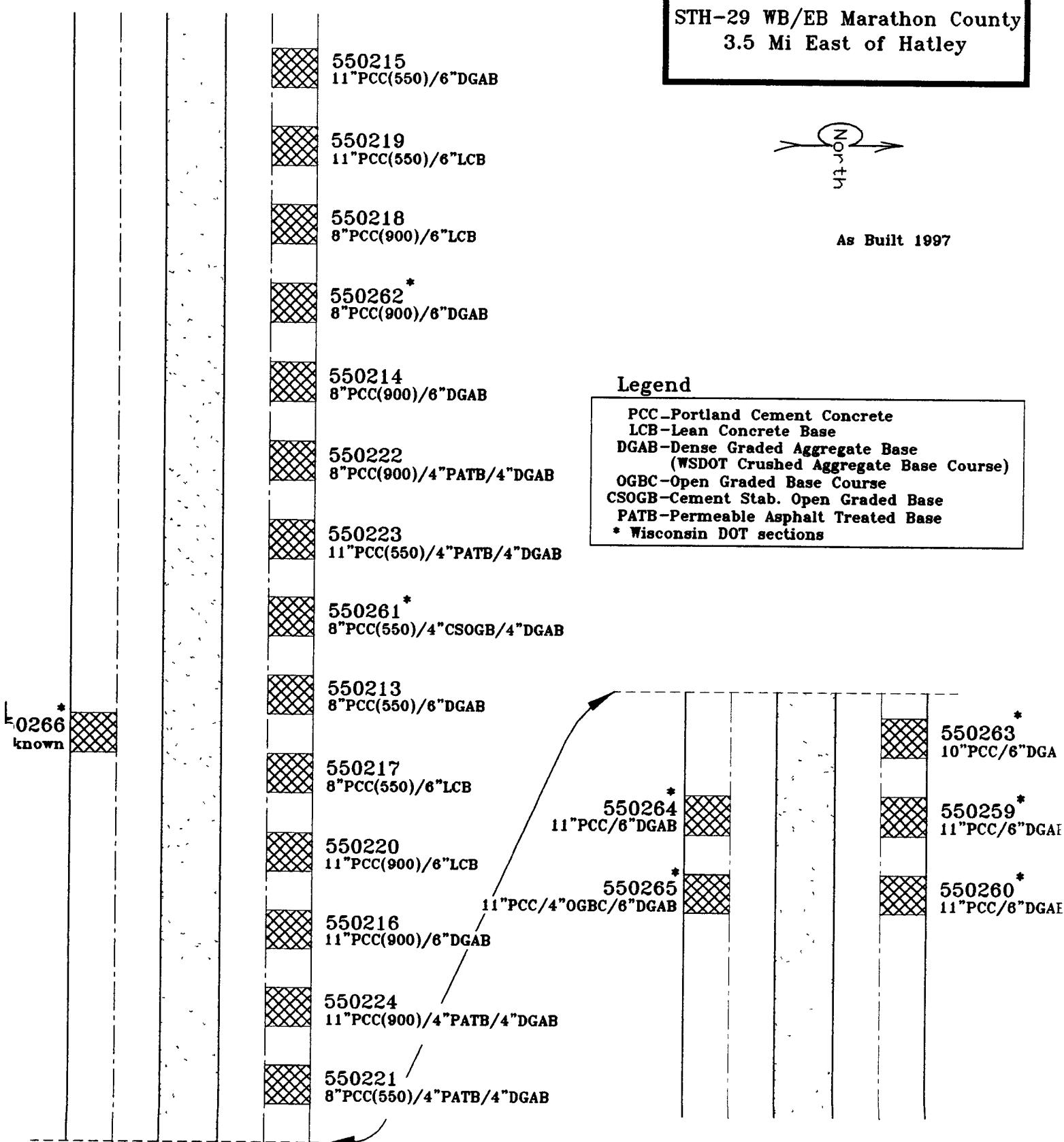


Figure B-1. Wisconsin SPS-2 Site Layout.

Attachment C

Material Sampling and Testing Plan

Figure C-1a. Overview of Sampling and Testing of Subgrade (WB).

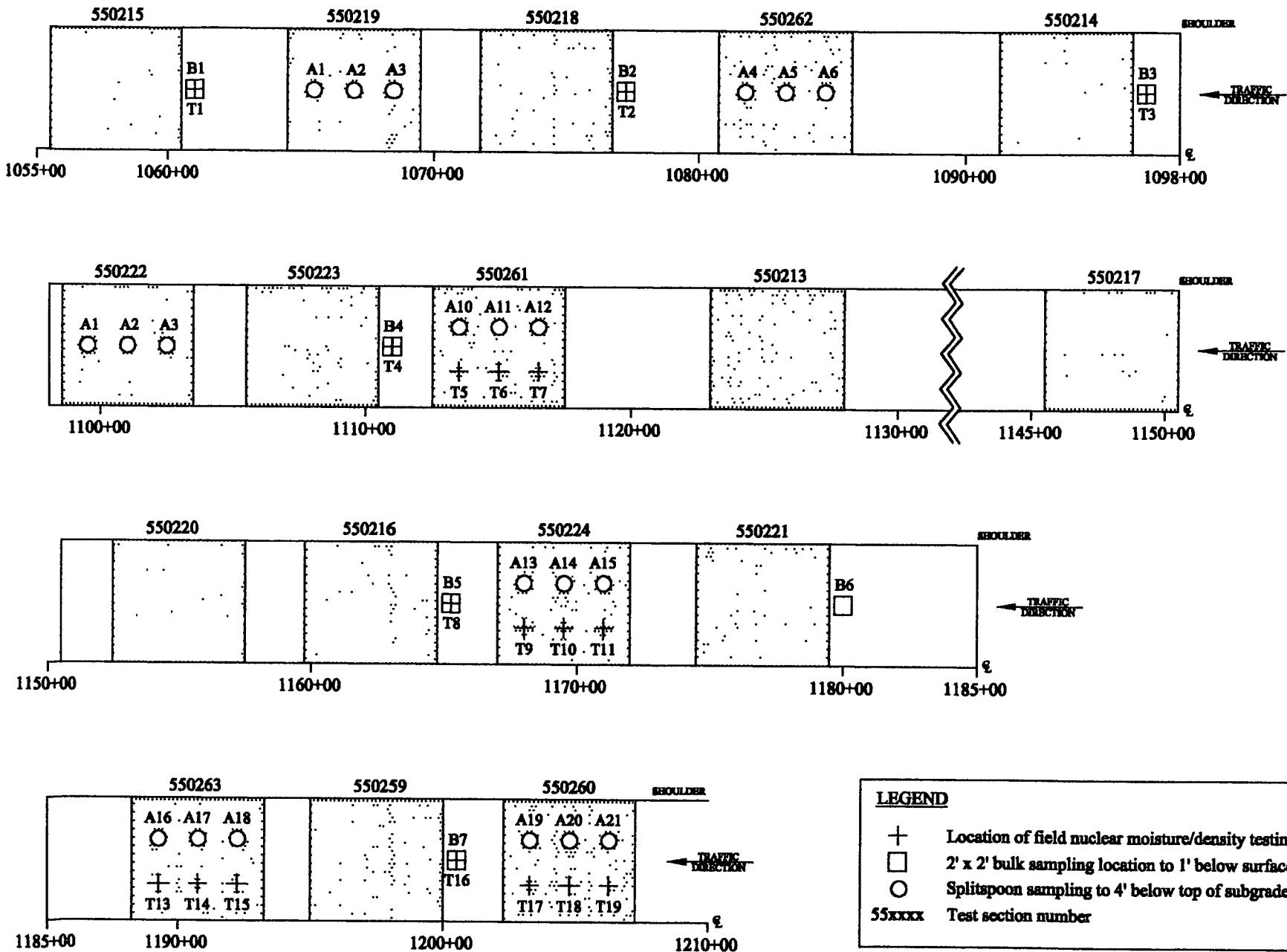


Figure C-1b. Overview of Sampling and Testing of Subgrade (EB).

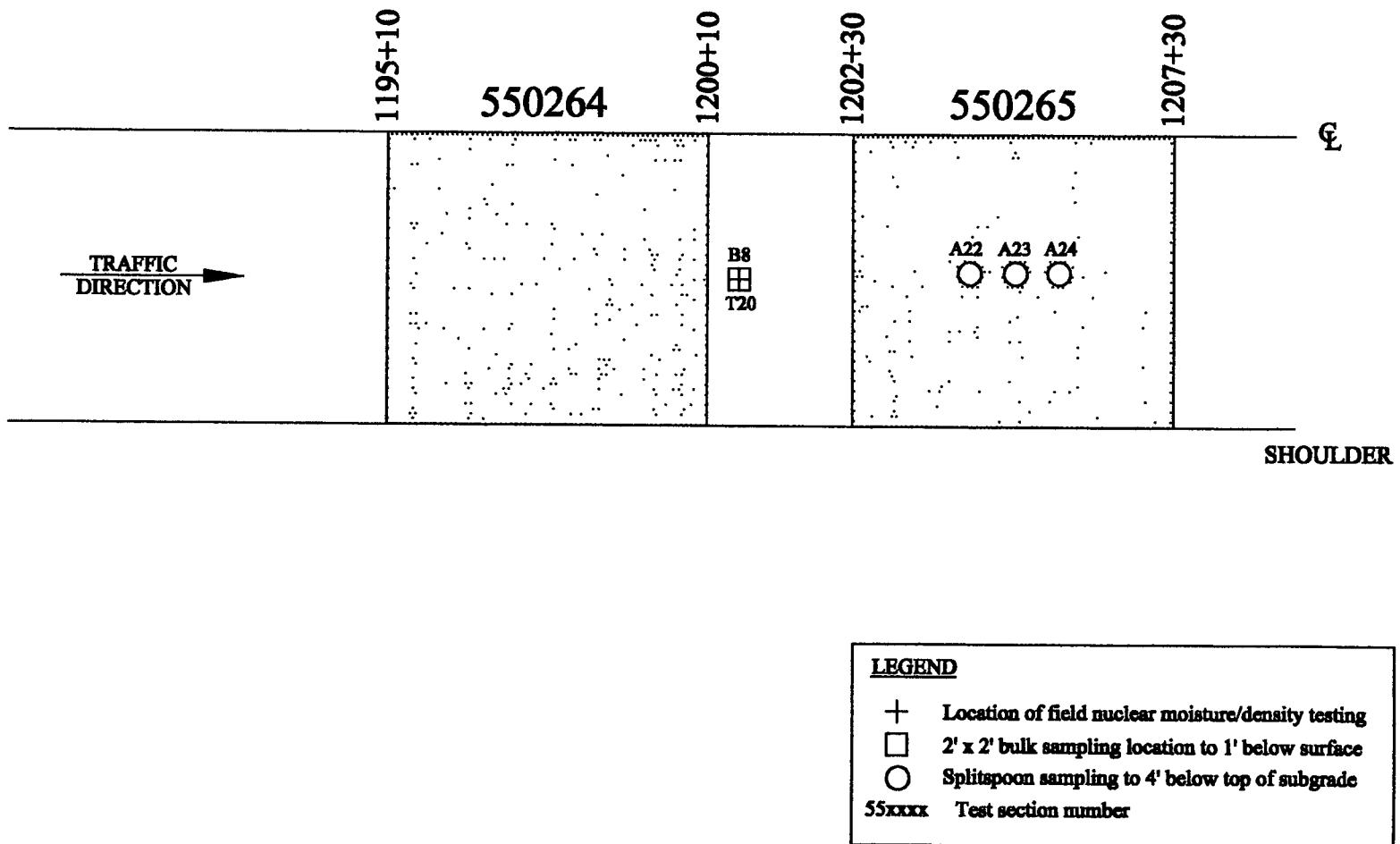


Figure C-2a. Overview of Sampling and Testing of Embankment (WB).

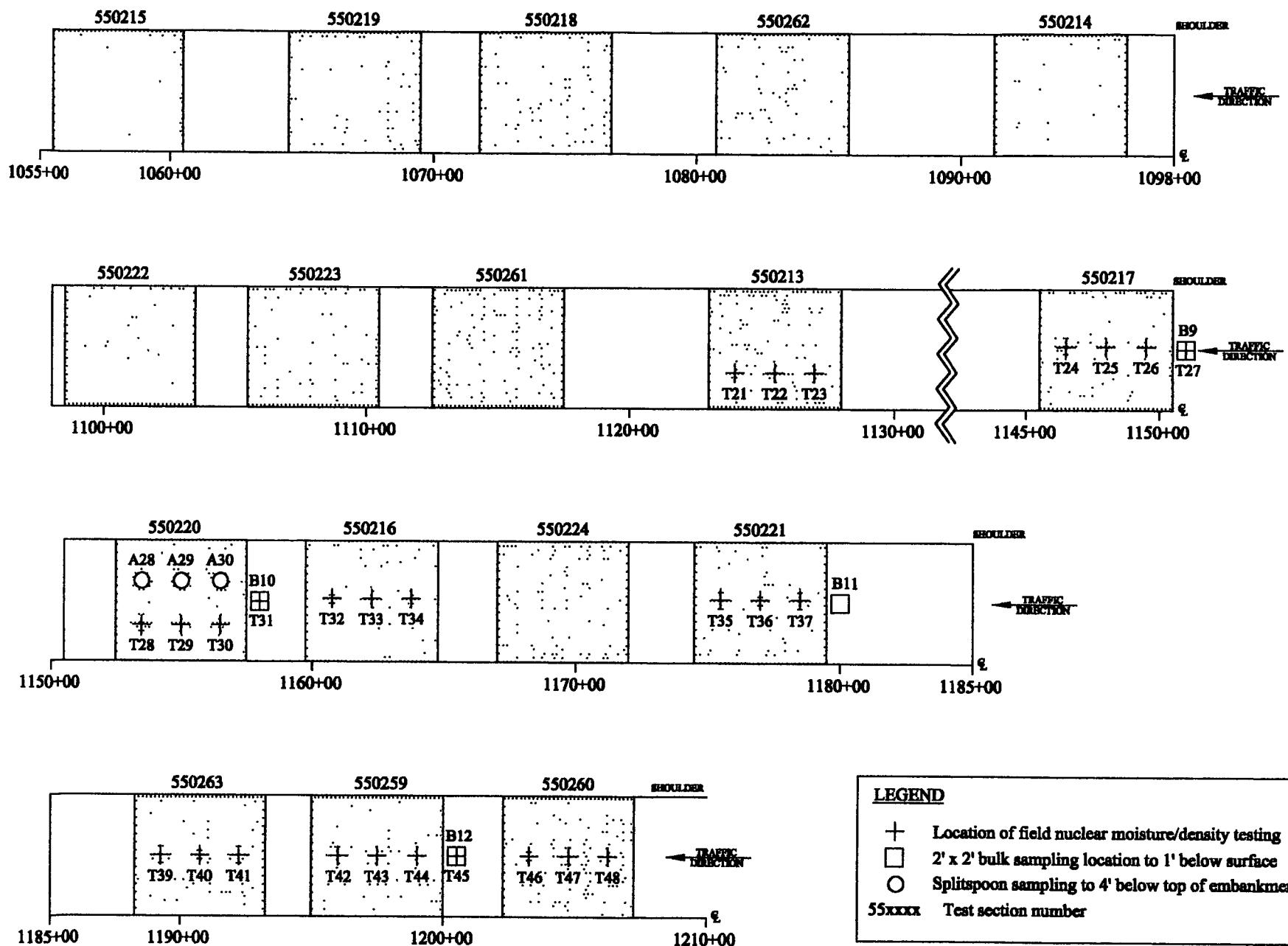


Figure C-2b. Overview of Sampling and Testing of Embankment (EB).

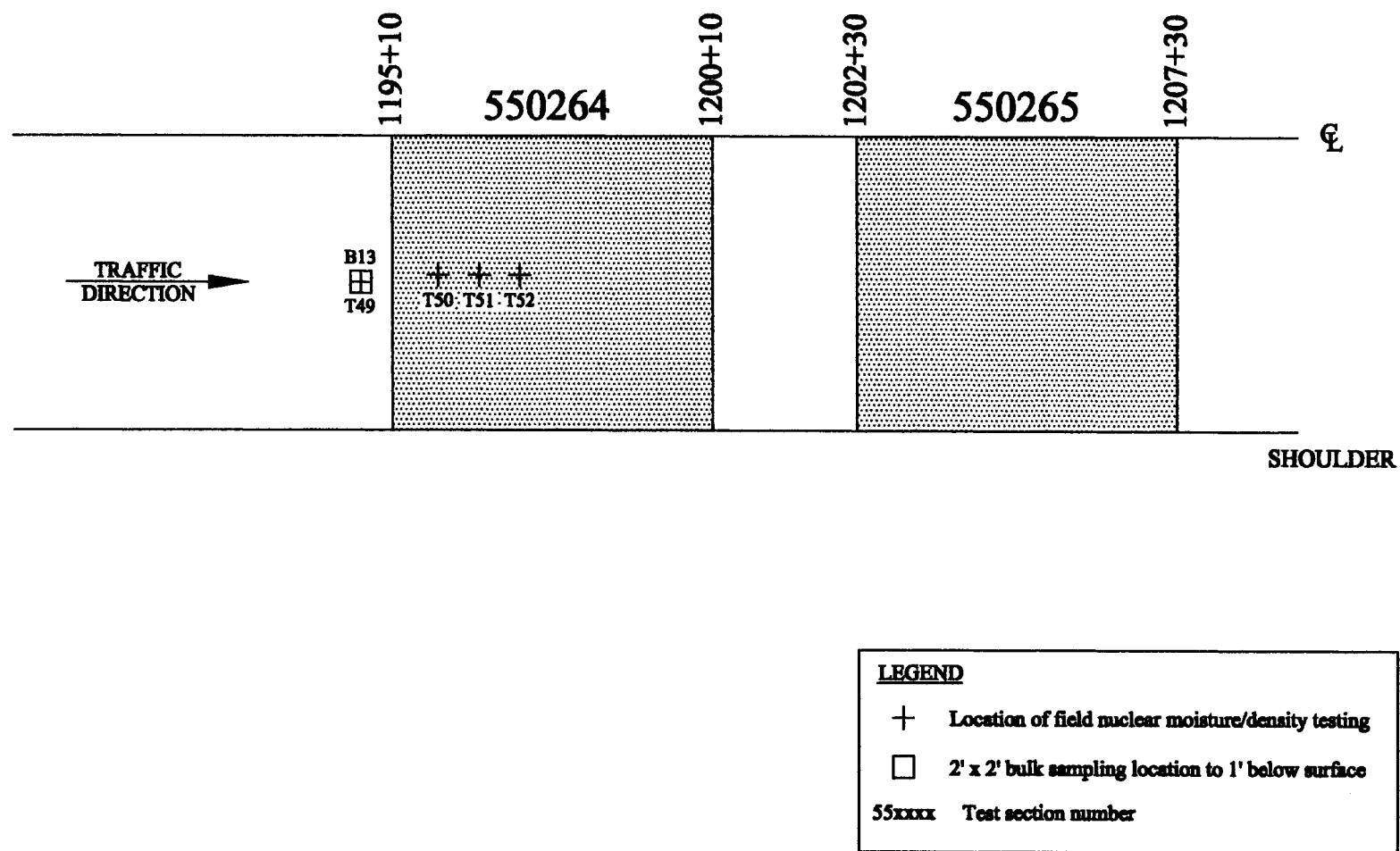


Figure C-3a. Overview of Sampling and Testing of Existing Subbase (WB).

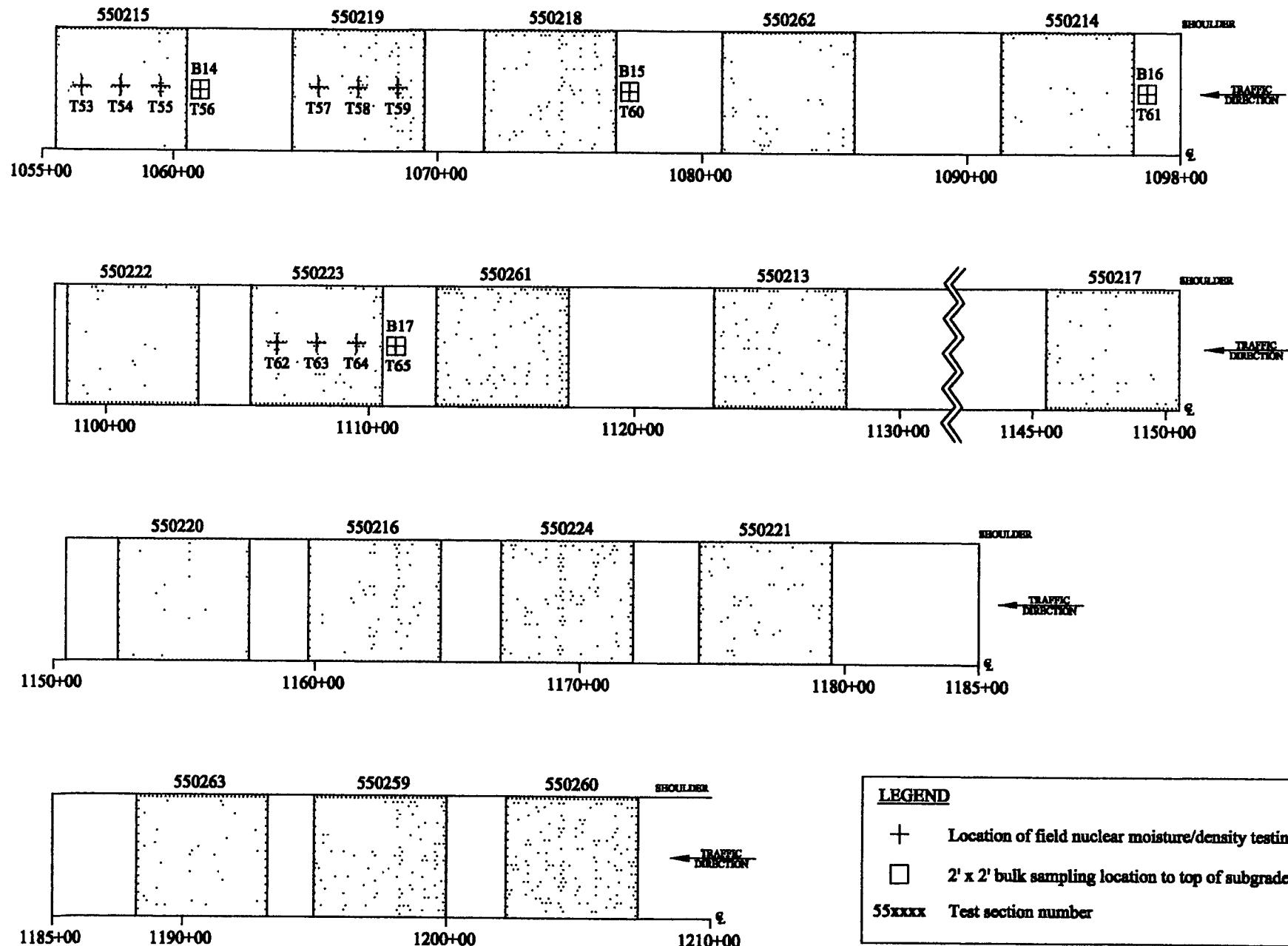


Figure C-3b. Overview of Sampling and Testing of Existing Subbase (EB).

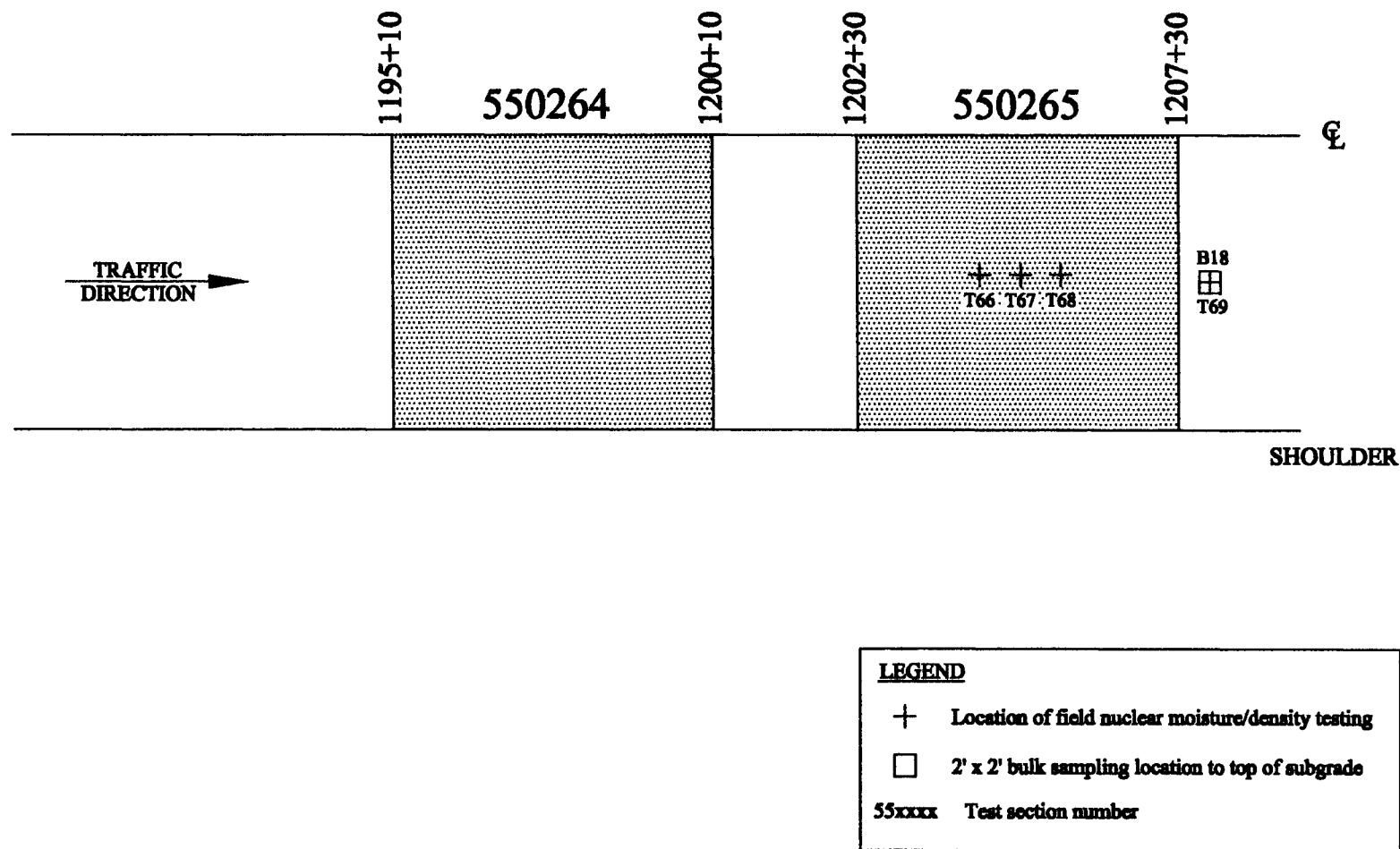


Figure 4. Overview of Sampling and Testing of Existing Crushed Rock Base (WB).

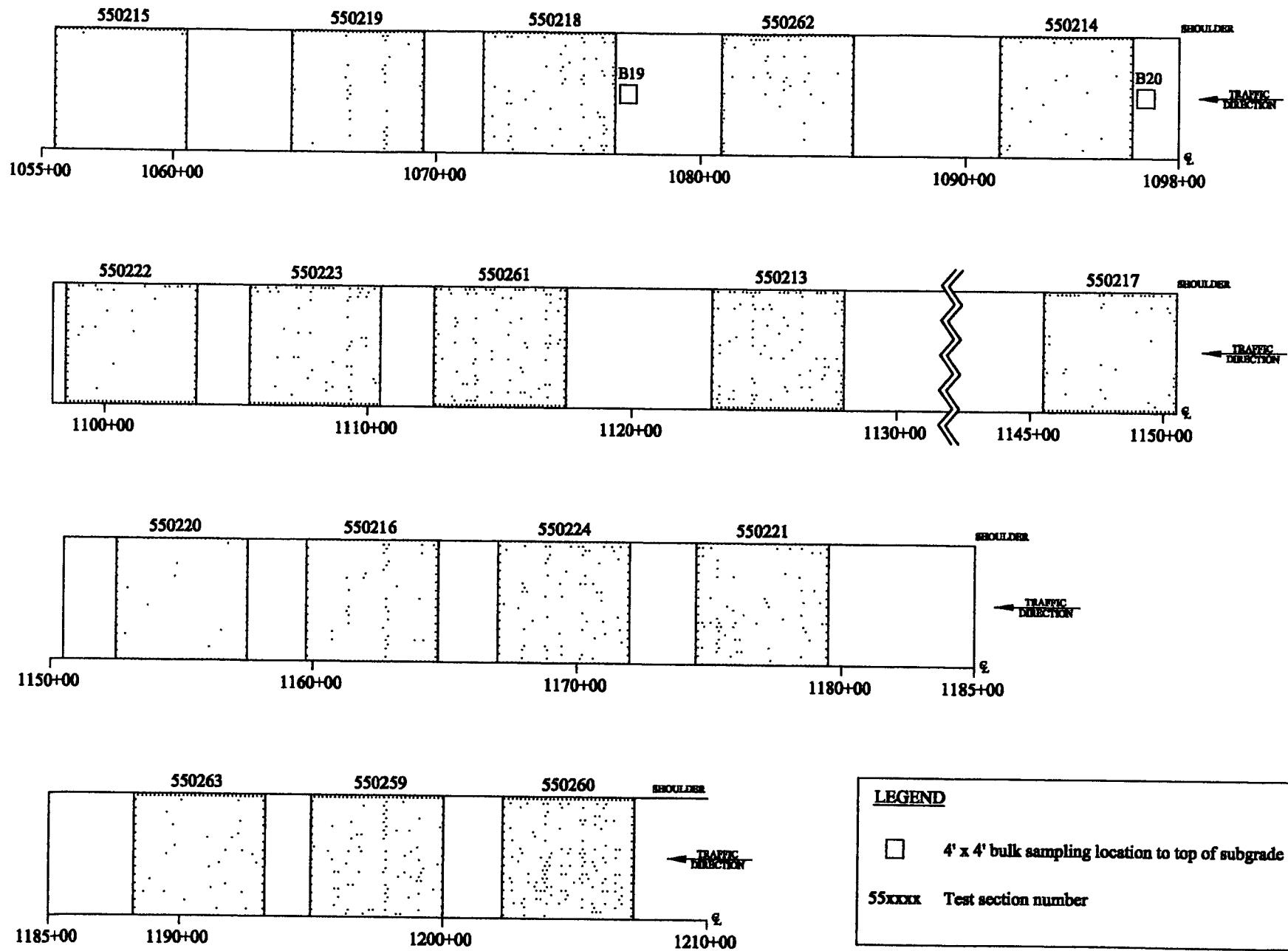


Figure C-5a. Overview of Sampling and Testing of DGAB (WB).

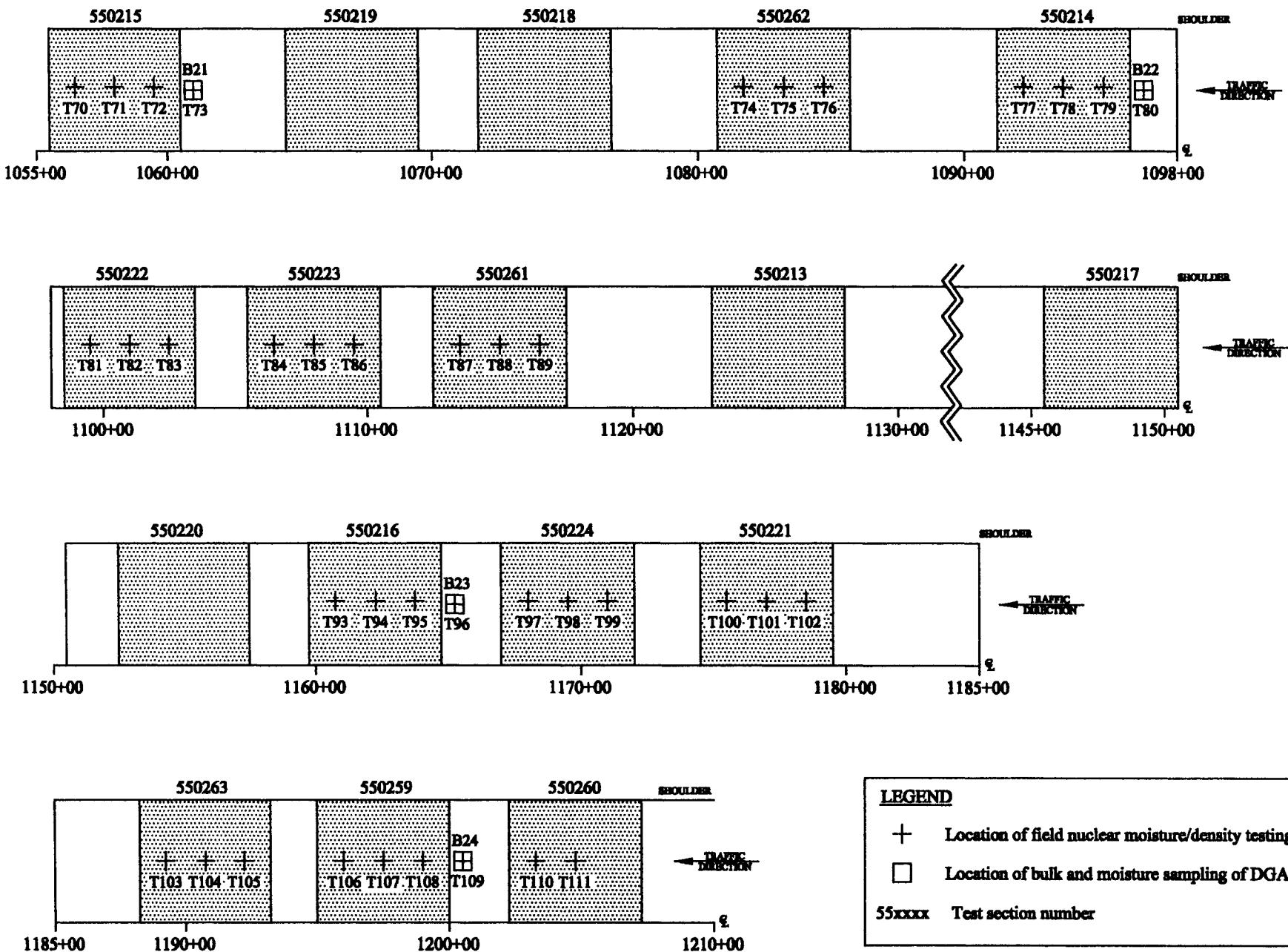


Figure C-5b. Overview of Sampling and Testing of DGAB (EB).

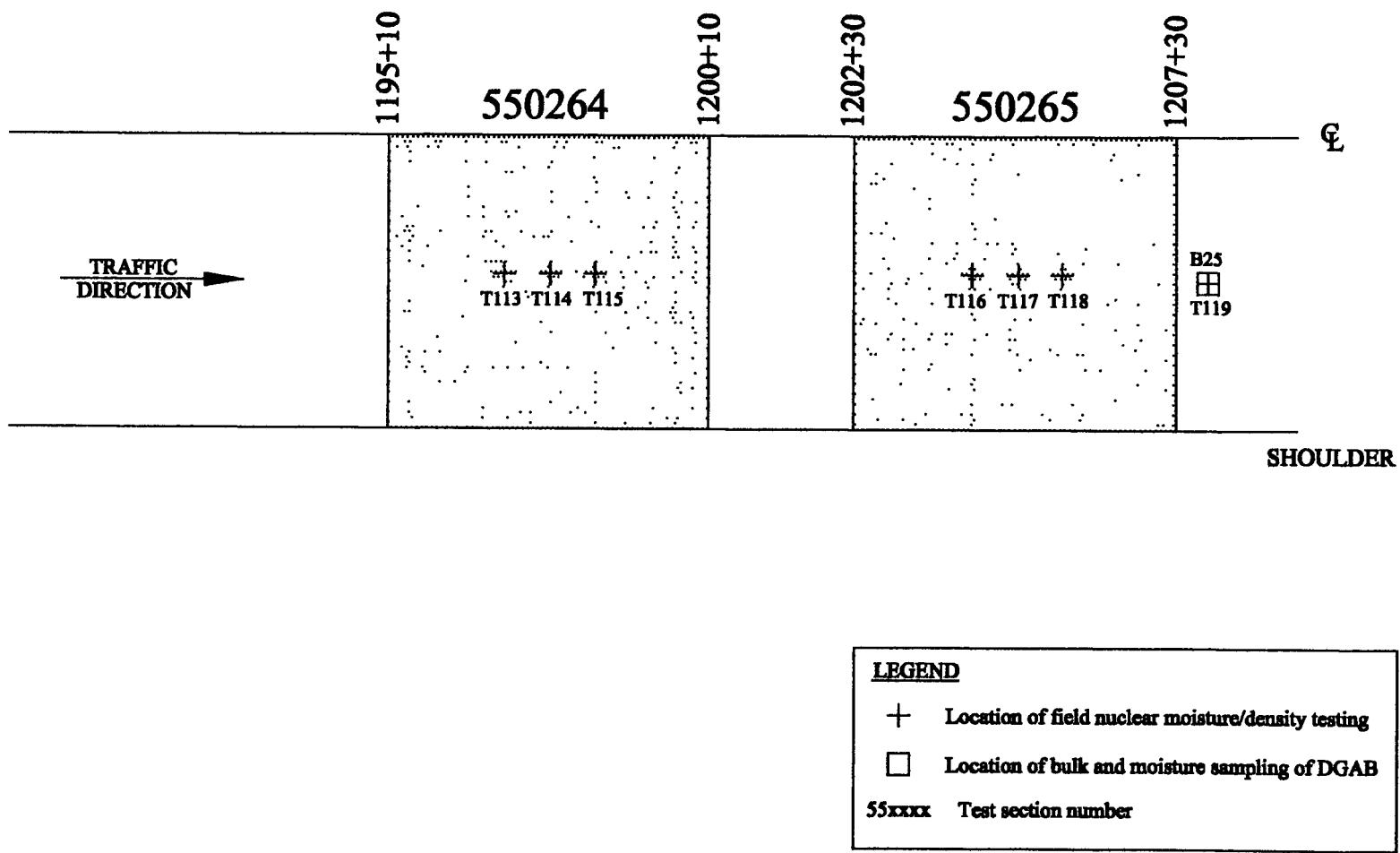


Figure C-6. Overview of Sampling and Testing of PATB and CSOGB (WB).

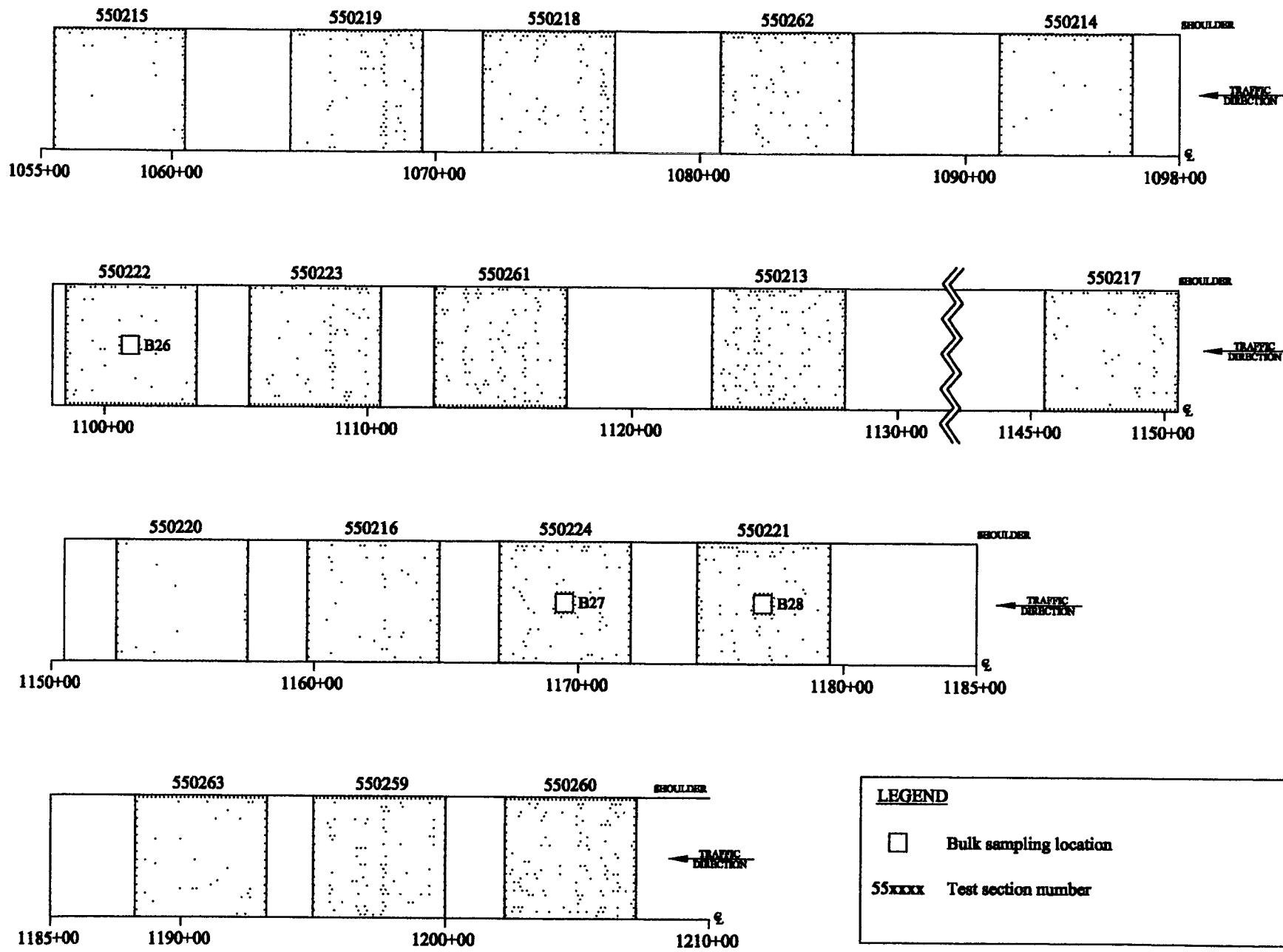


Figure C-7. Overview of Sampling and Testing of LCB (WB).

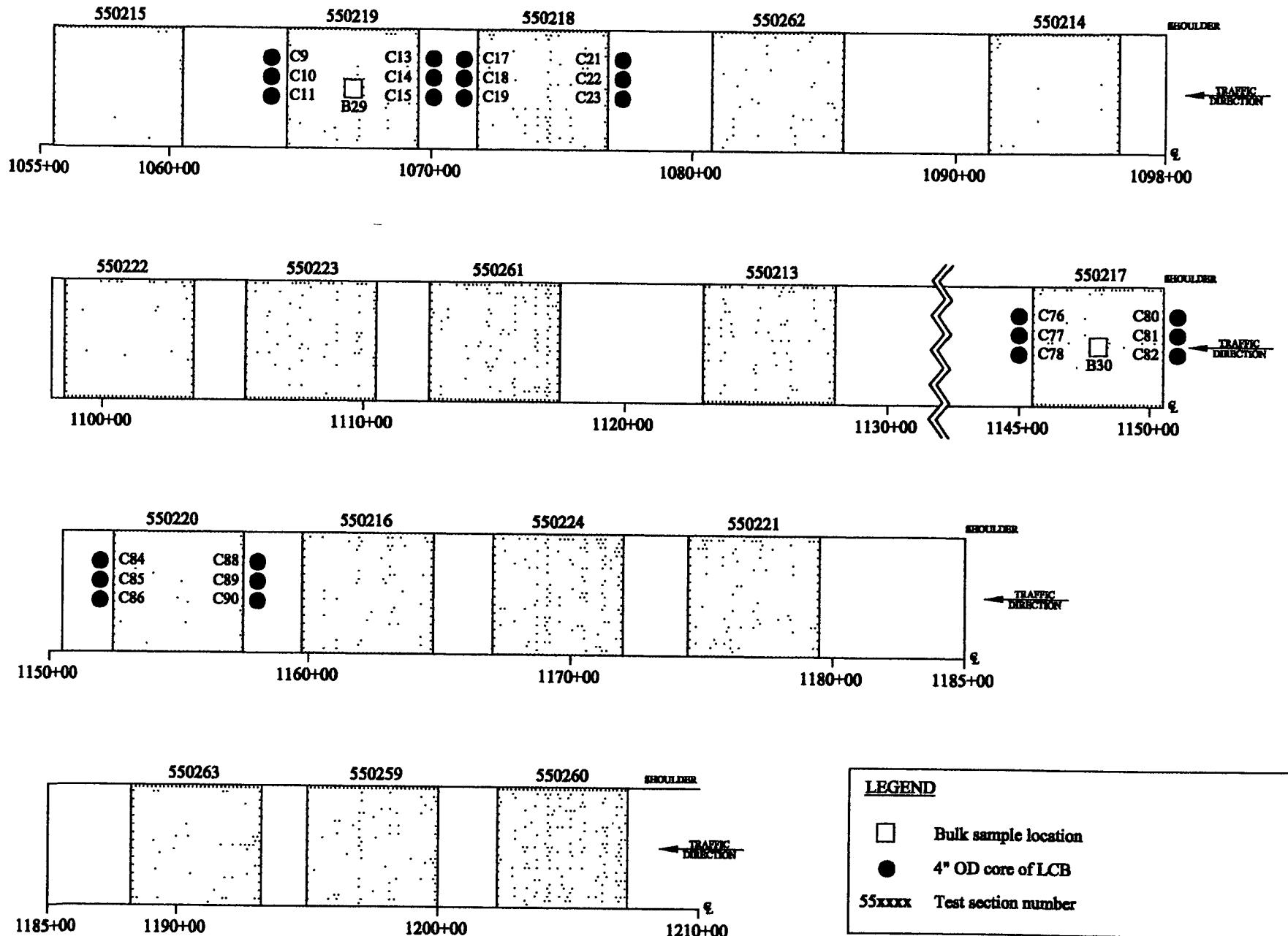


Figure C-8a. Overview of Sampling and Testing of PCC (WB).

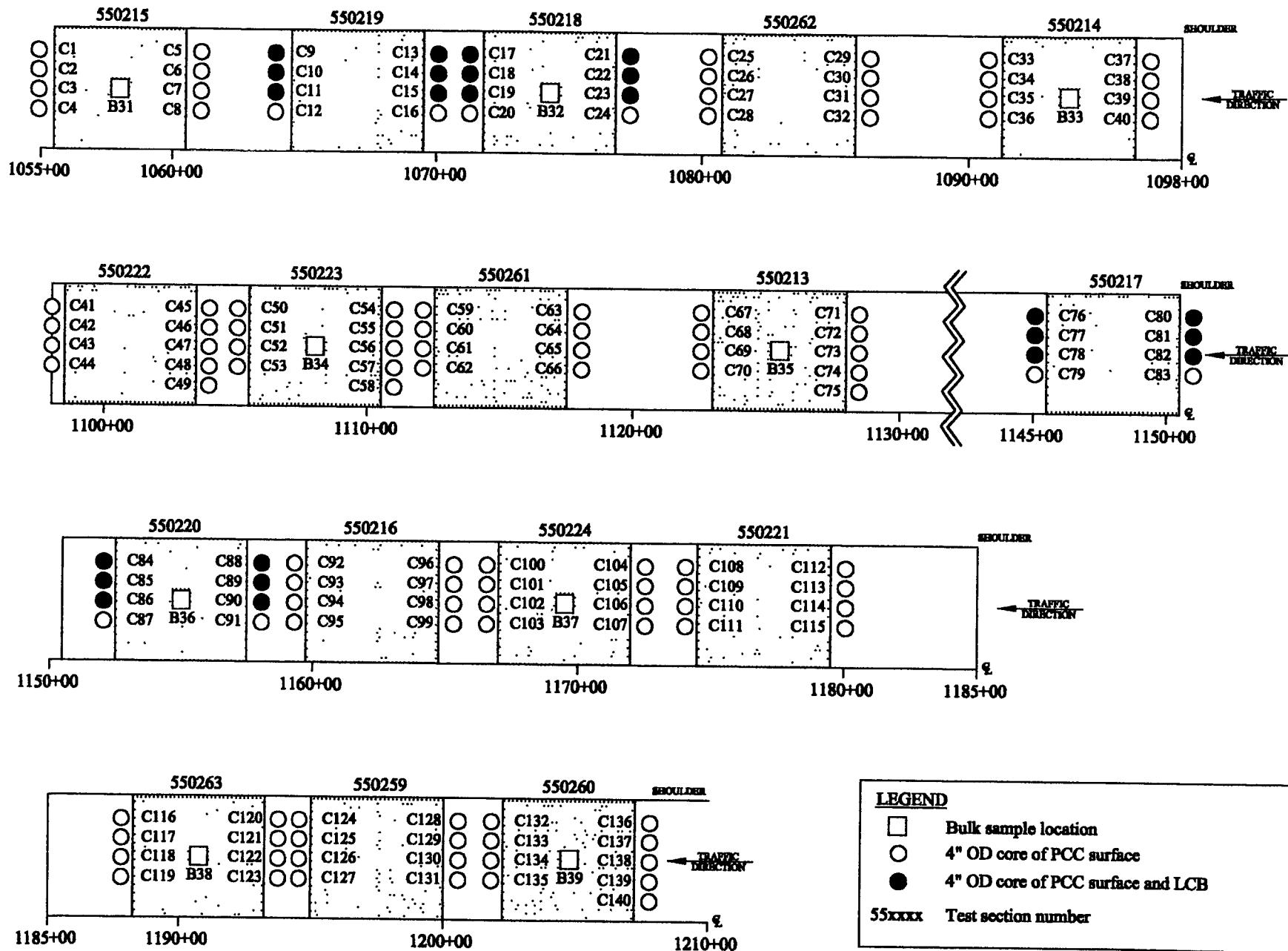
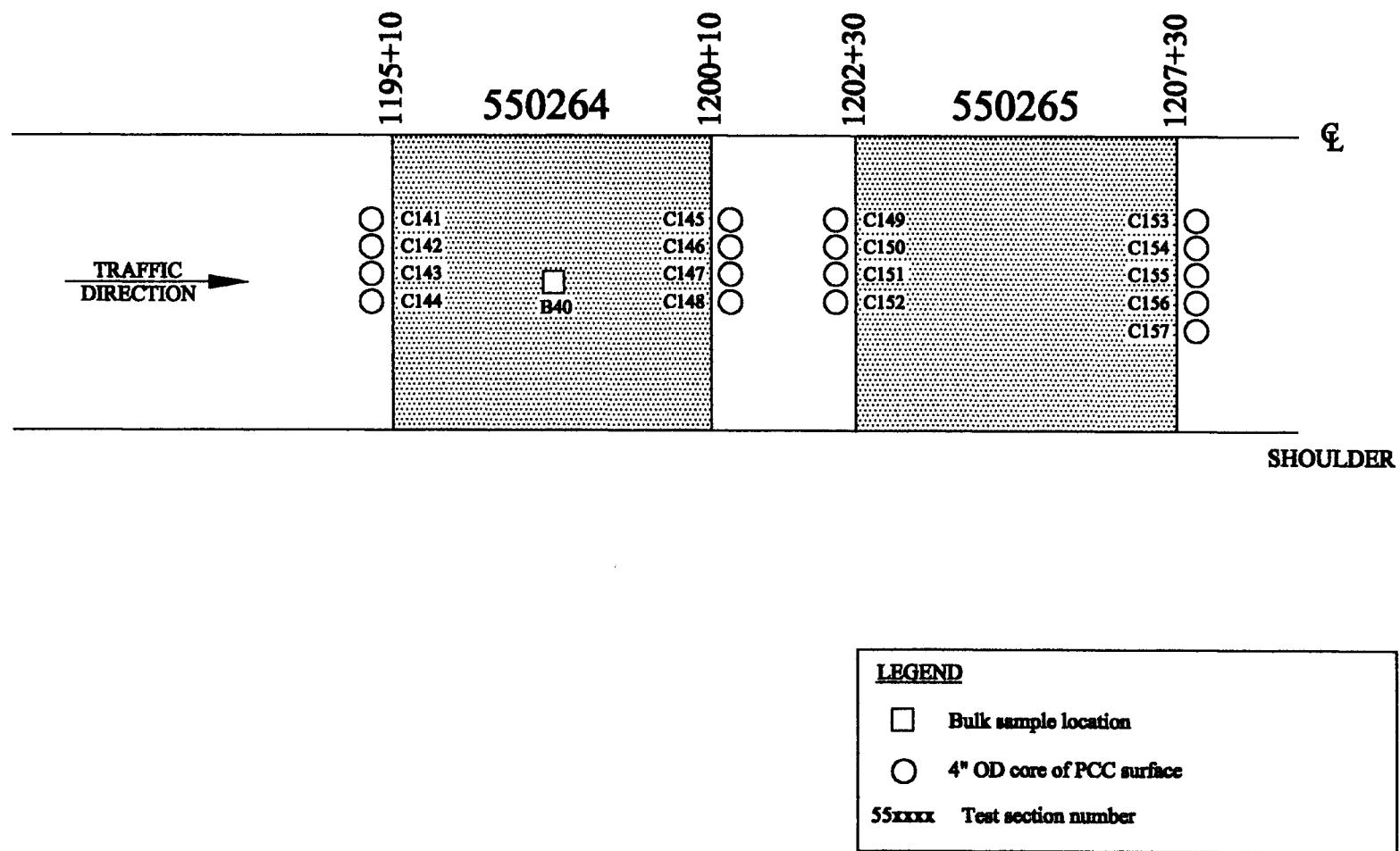


Figure C-8b. Overview of Sampling and Testing of PCC (EB).



Attachment D

Layer Description and Thickness for Each Section

Test Section	Layer Number	Layer Description	Material Type	Average Layer Thickness (inches)
550215 WB	1	Subgrade	Subgrade	-
	2	Subbase Layer	Existing Subbase	10
	3	Base Layer	DGAB	6
	4	Original Surface	PCC (550 psi)	11

Test Section	Layer Number	Layer Description	Material Type	Average Layer Thickness (inches)
550219 WB	1	Subgrade	Subgrade	-
	2	Subbase Layer	Existing Subbase	10
	3	Base Layer	LCB	6
	4	Original Surface	PCC (550 psi)	11

Test Section	Layer Number	Layer Description	Material Type	Average Layer Thickness (inches)
550218 WB	1	Subgrade	Subgrade	-
	2	Subbase Layer	Existing Subbase	10
	3	Base Layer	Existing Crushed Rock Base	3
	4	Base Layer	LCB	6
	5	Original Surface	PCC (900 psi)	8

Test Section	Layer Number	Layer Description	Material Type	Average Layer Thickness (inches)
550262 WB (WI-DOT)	1	Subgrade	Subgrade	-
	2	Subbase Layer	Existing Subbase	10
	3	Base Layer	Existing Crushed Rock Base	3
	4	Base Layer	DGAB	6
	5	Original Surface	PCC (900 psi)	8

Table D-1. Layer Description and Thickness for each Section.

Test Section	Layer Number	Layer Description	Material Type	Average Layer Thickness (inches)
550214 WB	1	Subgrade	Subgrade	-
	2	Subbase Layer	Existing Subbase	10
	3	Base Layer	Existing Crushed Rock Base	3
	4	Base Layer	DGAB	6
	5	Original Surface	PCC (900 psi)	8

Test Section	Layer Number	Layer Description	Material Type	Average Layer Thickness (inches)
550222 WB	1	Subgrade	Subgrade	-
	2	Subbase Layer	Existing Subbase	10
	3	Base Layer	Existing Crushed Rock Base	1
	4	Base Layer	DGAB	4
	5	Base Layer	PATB	4
	6	Original Surface	PCC (900 psi)	8

Test Section	Layer Number	Layer Description	Material Type	Average Layer Thickness (inches)
550223 WB	1	Subgrade	Subgrade	-
	2	Subbase Layer	Existing Subbase	8
	3	Base Layer	DGAB	4
	4	Base Layer	PATB	4
	5	Original Surface	PCC (550 psi)	11

Test Section	Layer Number	Layer Description	Material Type	Average Layer Thickness (inches)
550261 WB	1	Subgrade	Subgrade	-
	2	Embankment	Embankment Fill	24
	3	Base Layer	DGAB	4
	4	Base Layer	CSOGB	4
	5	Original Surface	PCC (550 psi)	8

Table D-1. Layer Description and Thickness for each Section (continued).

Test Section	Layer Number	Layer Description	Material Type	Average Layer Thickness (inches)
550213 WB	1	Subgrade	Subgrade	-
	2	Embankment	Embankment Fill	24
	3	Base Layer	DGAB	6
	4	Original Surface	PCC (550 psi)	8

Test Section	Layer Number	Layer Description	Material Type	Average Layer Thickness (inches)
550217 WB	1	Subgrade	Subgrade	-
	2	Embankment	Embankment Fill	24
	3	Base Layer	LCB	6
	4	Original Surface	PCC (550 psi)	8

Test Section	Layer Number	Layer Description	Material Type	Average Layer Thickness (inches)
550220 WB	1	Subgrade	Subgrade	-
	2	Embankment	Embankment Fill	24
	3	Base Layer	DGAB	6
	4	Original Surface	PCC (900 psi)	11

Test Section	Layer Number	Layer Description	Material Type	Average Layer Thickness (inches)
550216 WB	1	Subgrade	Subgrade	-
	2	Embankment	Embankment Fill	24
	3	Base Layer	DGAB	6
	4	Original Surface	PCC (900 psi)	11

Table D-1. Layer Description and Thickness for each Section (continued).

Test Section	Layer Number	Layer Description	Material Type	Average Layer Thickness (inches)
550224 WB	1	Subgrade	Subgrade	-
	2	Base Layer	DGAB	4
	3	Base Layer	PATB	4
	4	Original Surface	PCC (900 psi)	11

Test Section	Layer Number	Layer Description	Material Type	Average Layer Thickness (inches)
550221 WB	1	Subgrade	Subgrade	-
	2	Embankment	Embankment Fill	24
	3	Base Layer	DGAB	4
	4	Base Layer	PATB	4
	5	Original Surface	PCC (550 psi)	8

Test Section	Layer Number	Layer Description	Material Type	Average Layer Thickness (inches)
550263 WB (WI-DOT)	1	Subgrade	Subgrade	-
	2	Embankment	Embankment Fill	24
	3	Base Layer	DGAB	6
	4	Original Surface	PCC (550 psi)	10

Test Section	Layer Number	Layer Description	Material Type	Average Layer Thickness (inches)
550259 WB (WI-DOT)	1	Subgrade	Subgrade	-
	2	Embankment	Embankment Fill	24
	3	Base Layer	DGAB	6
	4	Original Surface	PCC (550 psi)	11

Table D-1. Layer Description and Thickness for each Section (continued).

Test Section	Layer Number	Layer Description	Material Type	Average Layer Thickness (inches)
550260 WB (WI-DOT)	1	Subgrade	Subgrade	-
	2	Embankment	Embankment Fill	24
	3	Base Layer	DGAB	6
	4	Original Surface	PCC (550 psi)	11

Test Section	Layer Number	Layer Description	Material Type	Average Layer Thickness (inches)
550264 EB (WI-DOT)	1	Subgrade	Subgrade	-
	2	Embankment	Embankment Fill	24
	3	Base Layer	DGAB	6
	4	Original Surface	PCC (550 psi)	11

Test Section	Layer Number	Layer Description	Material Type	Average Layer Thickness (inches)
550265 EB (WI-DOT)	1	Subgrade	Subgrade	-
	2	Subbase Layer	Existing Subbase	10
	3	Base Layer	DGAB	6
	4	Original Surface	PCC (550 psi)	11

Table D-1. Layer Description and Thickness for each Section.

Attachment E

Project Deviation Reports

LTPP SPS Project Deviation Report Project Summary Sheet		State Code Project Code	<u>0</u>	<u>2</u>	<u>5</u>	<u>5</u>
Project Classification Information						
SPS Experiment Number: SPS-2	State or Province: Wisconsin					
LTPP Region:	<input type="checkbox"/> North Atlantic <input checked="" type="checkbox"/> North Central <input type="checkbox"/> Southern <input type="checkbox"/> Western					
Climate Zone:	<input type="checkbox"/> Dry-Freeze <input type="checkbox"/> Dry-No Freeze <input checked="" type="checkbox"/> Wet-Freeze <input type="checkbox"/> Wet-No Freeze					
Subgrade Classification:	<input type="checkbox"/> Fine Grain <input checked="" type="checkbox"/> Coarse Grain <input type="checkbox"/> Active (SPS-8 Only)					
Project Experiment Classification Designation (SPS 1, 2, & 8): SPS-2						
Construction Start Date: June 1997	Construction End Date: November 1997					
FHWA Incentive Funds Provided to Agency for this Project:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No					
Deviation Summary						
Site Location Deviations:	<input checked="" type="checkbox"/> No Deviations <input type="checkbox"/> Minor Deviations <input type="checkbox"/> Significant Deviations					
Construction Deviations:	<input checked="" type="checkbox"/> No Deviations <input type="checkbox"/> Minor Deviations <input type="checkbox"/> Significant Deviations					
Data Collection and Processing Status Summary						
Inventory Data (SPS 5,6,7, & 9):	<input type="checkbox"/> Complete Submission <input type="checkbox"/> Incomplete <input type="checkbox"/> Data Not Available					
Materials Data:	<input checked="" type="checkbox"/> All Scheduled Samples Obtained and Tested <input type="checkbox"/> Incomplete					
Construction Data:	<input checked="" type="checkbox"/> All Required Data Obtained <input type="checkbox"/> Incomplete / Missing Data Elements					
Historical Traffic Data:	<input type="checkbox"/> All Required Historical Estimates Submitted (SPS 5, 6, 7, & 9) <input type="checkbox"/> Required Estimates Not Submitted					
Traffic Monitoring Equipment:	<input checked="" type="checkbox"/> WIM Installed On-Site <input type="checkbox"/> AVC Installed On-Site <input type="checkbox"/> ATR Installed On-Site <input type="checkbox"/> No Equipment Installed					
Traffic Monitoring:	<input type="checkbox"/> Preferred <input checked="" type="checkbox"/> Continuous <input type="checkbox"/> Minimum <input type="checkbox"/> Below Minimum <input type="checkbox"/> Site Related					
Traffic Monitoring Data:	<input checked="" type="checkbox"/> Monitoring Data Submitted <input type="checkbox"/> No Monitoring Data Submitted					
FWD Measurements:	<input type="checkbox"/> Pre-construction Tests Performed <input type="checkbox"/> Construction Tests Performed <input checked="" type="checkbox"/> Post-construction Tests Performed					
Profile Measurements:	<input type="checkbox"/> Pre-construction Tests Performed <input checked="" type="checkbox"/> Post-construction Tests Performed					
Distress Measurements	<input type="checkbox"/> Pre-construction Tests Performed <input checked="" type="checkbox"/> Post-construction Tests Performed					
Maintenance and Rehab. Data:	<input type="checkbox"/> Complete Submission <input type="checkbox"/> Incomplete <input type="checkbox"/> Data Not Available					
Friction Data:	<input type="checkbox"/> Complete Submission <input type="checkbox"/> Incomplete <input checked="" type="checkbox"/> Data Not Available					
Report Status						
Materials Sampling and Test Plan:	<input type="checkbox"/> Document Prepared <input checked="" type="checkbox"/> Final Submitted To FHWA					
Construction Report:	<input checked="" type="checkbox"/> Document Prepared <input type="checkbox"/> Final Submitted To FHWA					
AWS. (SPS 1, 2, & 8)	<input checked="" type="checkbox"/> AWS Installed <input type="checkbox"/> AWS Installation Report Submitted to FHWA					

LTPP SPS Project Deviation Report Construction Guidelines Deviation	State Code Project Code	0	2	5	5
<input checked="" type="checkbox"/> Comments Pertain to All Test Sections on Project					
<input type="checkbox"/> Comments Pertain Only to Section(s): (Specify) _____					
<p>Construction Guidelines Deviation Comments</p> <hr/>					
All sections: Unbound aggregate base layers cut to grade using a CMI trimming machine.					
<hr/>					

LTPP SPS Project Deviation Report Other Deviations	State Code Project Code	<u>0</u>	<u>2</u>	<u>5</u>	<u>5</u>
<input checked="" type="checkbox"/> Comments Pertain to All Test Sections on Project					
<input type="checkbox"/> Comments Pertain Only to Section(s): (Specify) _____					
Other Deviation Comments					
None known.					
<hr/>					

LTPP SPS Project Deviation Report Site Location Guidelines Deviations	State Code Project Code	<u>0</u>	<u>2</u>	<u>5</u>	<u>5</u>
<input checked="" type="checkbox"/> Comments Pertain to All Test Sections on Project					
<input type="checkbox"/> Comments Pertain Only to Section(s): (Specify) _____					
Site Location Guideline Deviation Comments					
None known.					
<hr/>					

LTPP SPS Project Deviation Report Data Collection and Materials Sampling and Testing Deviations	State Code Project Code	<u>0</u>	<u>2</u>	<u>5</u>	<u>5</u>
<p><input checked="" type="checkbox"/> Comments Pertain to All Test Sections on Project</p> <p><input type="checkbox"/> Comments Pertain Only to Section(s): (Specify) _____</p>					
Data Collection & Material Sampling and Testing Deviation Comments					
<p>During the splitspoon testing, a number of areas had existing concrete slabs located beneath the old pavement structure. These areas of concrete were removed and fill was placed in these areas.</p>					
<p>Because of the process used to remove the existing pavement it was not possible to obtain undisturbed samples of the existing base or subbase material.</p>					
<p>Soil boring records were provided that made it unnecessary to perform shoulder probes. The depth to rigid layer exceeded 20 ft.</p>					
<p>Several other minor sampling deviations are noted on sampling data sheets.</p> <p>_____</p>					

Submitted by



505 West University Avenue
Champaign, IL 61820-3915
Phone: (217) 356-4500
Fax: (217) 356-3088
<http://www.eresnet.com>

ERES Project No. 95-075-R1